

Mr. Kyle Morton
Environmental, Safety and Training Manager
Bremen Castings, Inc.
500 North Baltimore Street
Bremen, Indiana 46506

Re: 099-12984
Fourth Administrative Amendment to
Part 70 Permit T 099-6206-00001

Dear Mr. Morton:

Bremen Casting Incorporation was issued a Part 70 Operating Permit T099-6206-00001 on January 21, 1999 to operate a stationary gray and ductile iron castings manufacturing plant. A letter was received on November 14, 2000 indicating that Bremen Casting Incorporation intends to install two (2) grinding units with total maximum process weight rate of less than 100 pounds per hour. Based on the information provided by Bremen Casting Incorporation, the potential uncontrolled particulate matter (PM) emissions from the two (2) grinding units shall be less than the allowable 0.551 pounds per hour without the benefit of using any control device. Bremen Casting Incorporation shall voluntarily control the PM emissions from these grinding units using the existing baghouse BGH #1 and exhausting through stack DC-1. Sections A.3 and D.3 of the Part 70 Operating Permit shall be revised, to reflect the addition of the two (2) grinding units to the source, as follows:

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source ~~does not currently have any~~ **also includes the following** insignificant activities **which are specifically regulated**, as defined in 326 IAC 2-7-1 (21):

- (a) **Two (2) grinding units with PM emissions controlled by BGH #1 and exhausting through DC-1.**

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (f) A sand handling system consisting of:
- (1) one (1) shakeout system including one (1) shaker pan and one (1) rotary shakeout, with particulate matter emissions controlled by a baghouse, identified as BGH #6,
 - (2) one (1) sand muller, two (2) silos, two (2) sand storage tanks, two (2) elevators, conveyors, one (1) magnetic separator, one (1) sand cooler, one (1) sand screen, and one (1) recycle sand hopper, with particulate matter emissions controlled by a baghouse, identified as BGH #6; and
- (g) A grinding/cleaning operation including three (3) shot blast machines, identified as Shot #1 - #3, and grinding/finishing, each controlled by a baghouse (BGH #2 BGH #1, BGH #5 and BGH #4, respectively), and each exhausting through one (1) stack (DC-2, DC-1, DC-5 and DC-4, respectively).

Insignificant activities, as defined in 326 IAC 2-7-1 (21):

- (a) **Two grinding units with PM emissions controlled by BGH #1 and exhausting through DC-1.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from sand handling shall not exceed 51.28 pounds per hour, when operating at a total process weight rate of 100 tons per hour.

The above pounds per hour limitations were calculated with the following equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where} \quad E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from casting shakeout shall not exceed 21.67 pounds per hour, when operating at a total process weight rate of 12 tons per hour.

The above pounds per hour limitations were calculated with the following equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from the grinding/cleaning operation shall not exceed 17.06 pounds per hour, when each is operating at a maximum process weight rate of 8.4 tons per hour.

The above pounds per hour limitations were calculated with the following equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (d) **Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from the two (2) grinding units which have a maximum process weight rate of less than 100 pounds per hour shall not exceed 0.551 pounds per hour.**

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment with the original permit.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

SP/EVP

cc: File - Marshall County
Marshall County Health Department
Northern Regional Office - Dick Sekula
U.S. EPA, Region V
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Bremen Casting, Inc.
500 North Baltimore Street
Bremen, Indiana 46506**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| | |
|---|--|
| Operation Permit No.: T099-6206-00001 | |
| Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management | Issuance Date: January 21, 1999 |
| First Administrative Amendment: 099-10532 | Pages Affected: Cover page, 5, 6, 28, 33, 34 Issuance Date: April 9, 1999 |
| Second Administrative Amendment: 099-11720 | Pages Affected: 5 Issuance Date: March 8, 2000 |
| Third Administrative Amendment: 099-11952 | Pages Affected: 29, 34 Issuance Date: April 12, 2000 |
| Fourth Administrative Amendment: 099-12984 | Pages Affected: 6, 33 |
| Issued by: Paul Dubenetzky, Branch Chief Office of Air Management | Issuance Date: |

- (2) one (1) sand muller, two (2) silos, two (2) sand storage tanks, two (2) elevators, conveyors, one (1) magnetic separator, one (1) sand cooler, one (1) sand screen, and one (1) recycle sand hopper, with particulate matter emissions controlled by a baghouse, identified as BGH #6; and
- (g) A grinding/cleaning operation including three (3) shot blast machines, identified as Shot #1 - #3, and grinding/finishing, each controlled by a baghouse (BGH #2, BGH #1, BGH #5, and BGH #4, respectively), and each exhausting through one (1) stack (DC-2, DC-1, DC-5 and DC-4, respectively); and

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1 (21):

- (a) Two (2) grinding units with PM emissions controlled by BGH #1 and exhausting through DC-1.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (f) A sand handling system consisting of:
- (1) one (1) shakeout system including one (1) shaker pan and one (1) rotary shakeout, with particulate matter emissions controlled by a baghouse, identified as BGH #6,
 - (2) one (1) sand muller, two (2) silos, two (2) sand storage tanks, two (2) elevators, conveyors, one (1) magnetic separator, one (1) sand cooler, one (1) sand screen, and one (1) recycle sand hopper, with particulate matter emissions controlled by a baghouse, identified as BGH #6; and
- (g) A grinding/cleaning operation including three (3) shot blast machines, identified as Shot #1 - #3, and grinding/finishing, each controlled by a baghouse (BGH #2 BGH #1, BGH #5 and BGH #4, respectively), and each exhausting through one (1) stack (DC-2, DC-1, DC-5 and DC-4, respectively).

Insignificant activities, as defined in 326 IAC 2-7-1 (21):

- (a) Two (2) grinding units with PM emissions controlled by BGH #1 and exhausting through DC-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from sand handling shall not exceed 51.28 pounds per hour, when operating at a total process weight rate of 100 tons per hour.

The above pounds per hour limitations were calculated with the following equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from casting shakeout shall not exceed 21.67 pounds per hour, when operating at a total process weight rate of 12 tons per hour.

The above pounds per hour limitations were calculated with the following equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from the grinding/cleaning operation shall not exceed 17.06 pounds per hour, when each is operating at a maximum process weight rate of 8.4 tons per hour.

The above pounds per hour limitations were calculated with the following equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (d) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emissions from the two (2) grinding units which have a maximum process weight rate of less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.